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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,997	07/12/2001	Edwin I. Bernard	LIT3-B045	2238
21611	7590	02/25/2004	EXAMINER	
SNELL & WILMER LLP 1920 MAIN STREET SUITE 1200 IRVINE, CA 92614-7230			ZEADE, BERTRAND	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/903,997	Applicant(s) BERNARD, EDWIN I.	
	Examiner Bertrand Zeade	Art Unit 2875	<i>pw</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-5, 7-10 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5, 7-10 and 12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 2-5, 7-10, 12-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 U.S.C. § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-5,7-10,12-14,19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lippman et al. (U.S.5,695,269) in view of Kramer (U.S.3789211) and Abileah.

Lippmann ('269) discloses a multi-color display lighting by LED having:

Regarding claim 7, a pair of LED arrays (28) disposed alongside the LCD (10) for providing illumination thereof, each LED array (28) having a plurality of different colored LEDs, light pipe (22) for transmitting light from the array of LEDs (28) across a plane parallel with the LCD (10), filters (20) disposed between the array (28) and the light pipe (22) for filtering out light from the LEDs (28).

Regarding claim 5, a pair of LED arrays (28) disposed on two sides of the light pipes (22) with a filter (20) disposed between each LED (28) array and the light pipes (22), each filter (20) for filtering out light from each LED (28).

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Regarding claim 19, an array of a plurality of different color LEDs (28) disposed alongside the LCD for providing illumination thereof, the LEDs of each color being electrically connected together as a color group as shown in (fig.1), whereby each different group can be illuminated separately, a filter a switching for selectively powering each color groups may be selectively powered.

Regarding claim 20, a method of multi-color illumination for a LCD, comprising the steps of: providing an array of a plurality of different color LEDs (28), the LEDs (28) of the same color being grouped, filtering the light from the array (28) of light to remove infra-red light,.

Lippman ('269) does not disclose a switch for selectively powering each same color plurality of LEDs in group or powering all the LEDs in the ray.

Kramer ('211) discloses a decorative light system having:

Regarding claims 7,19,20 as shown in (figs. 3-5), a switch (16A/16B/16c) for selectively powering each same color plurality of LEDs (22A,22B,22c) in group or powering all the LEDs in the ray (22A,22B,22C).

Regarding claim 2, the array of LEDs (22A,22B,22C) includes diodes (22A) only red light.

Regarding claim 3, the array of LEDs (22A,22B,22C) includes diodes (22B) only blue light.

Regarding claim 4, the array of LEDs (22A,22B,22C) includes (22C) only green light.

Regarding claim 8, the array of LEDs (22A,22B,22C) includes (22A) only red light.

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Regarding claim 9, the array of LEDs (22A,22B,22C) includes ((22B) only blue light.

Regarding claim 10, the array of LEDs (22A,22B,22C) includes (22C) only green light.

Regarding claim 12, the array (22A,22B,22c) of LEDs includes diodes (22A) emitting only red light.

Regarding claim 13, the array (22A,22B,22c) of LEDs includes diodes (22C) emitting only green light.

Regarding claim 14, the array (22A,22B,22c) of LEDs includes diodes (22B) emitting only blue light.

It would have been obvious to one of ordinary skill in the art at the time invention was made to utilize the multi-color display lighting by LED of Lippman ('269) with the switch for selectively powering each same color plurality of LEDs in group or powering all the LEDs in the ray taught by Kramer ('211), in order to provide a lighting system which produces a randomly changing intensity levels of light or lights which blend to display dynamically changing colored lights, a control means controls the power through each of the channels in an independent and random fashion between on and off, each lamp load is caused to slowly increase or decrease in intensity between on and off in response to its respective channel, because the control means is in the form of a three channeled self-modulating half-way phase control circuit, wherein each of the lamp loads exhibit a different color and the three being red, blue and green.

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1. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lippman ('269) in view of Abileah (U.S.6111622).

Regarding claim 15, activating an array of a plurality of different color LEDs color adjacent the LCD (10), filtering infra-red light emitted by the array of LEDs (28), and switching colors of the LEDs (28) in groups according to colors as required by the pilot of the aircraft.

Regarding claim 16, the step of switching further includes switching (16C) on only those LEDs (22A) emitting green light.

Regarding claim 17, the step of switching further includes switching (16B) on only those LEDs (22B) blue light (col.10, lines 42-58).

Regarding claim 18, the step of switching further includes switching on only those LEDs green light (col.10, lines 42-58).

It would have been obvious to one of ordinary skill in the art at the time invention was made to utilize the multi-color display lighting by LED of Lippman ('269) with the infra-red disclosed by Abileah for benefit and advantage to provide an infra-red light absorbing filter including in the LCD stack, the infra-red light absorbing filter is repositioned within the LCD stack between the light source, having the advantage of preventing all infra-red light from being emitted from the display in nighttime operation while transmitting the maximum amount of light during the daytime operation.

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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2. Shaw et al. (U.S. 6,419,372) discloses a compact optical wave-guide system for LED backlighting LCD display having day mode LEDs.
3. Okuda et al. (U.S. 6,144,424) discloses a backlighting device having LEDs.
4. Pelka (U.S. 6,007,209) discloses light source for backlighting with series of LEDs.
5. Mori (U.S. 6,288,700) discloses L.E. flat panel device which uses light guide routes to directly send light into a matrix of electronic shutters.

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bertrand Zeade whose telephone number is 571-272-2387. The examiner can normally be reached on 9:30 AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bertrand Zeade
Examiner
Art Unit 2875


Stephen Husar
Primary Examiner